

U.S. Patent Application Serial No.: **10/593,282**

Amendment filed January 26, 2012

Reply to OA dated October 26, 2011

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A substrate processing apparatus comprising a load lock chamber and a transfer chamber provided in order from the rear side within a case, and a processing chamber provided above the load lock chamber for processing a substrate, wherein an opening section, arranged for entry of maintenance personnel into the transfer chamber, and a door for opening and closing the opening section are provided in a location at the ~~rear~~ side of the transfer chamber where the load lock chamber is not arranged.

Claim 2 (Cancel)

Claim 3 (Cancel)

Claim 4 (Currently Amended): A substrate processing apparatus according to claim 1 [[2]], wherein the door faces the exterior of the case.

Claim 5 (Currently Amended): A substrate processing apparatus comprising a standby chamber for supporting a substrate in a substrate support jig and maintaining the substrate in

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standby, a transfer chamber, and a carrier load mount for loading a carrier storing the substrate, which are provided in order from the rear side within a case, and a processing chamber provided above the standby chamber for processing the substrate, wherein the line segment joining the center of the substrate supported in the substrate support jig, with the center of the substrate on the carrier loaded in the carrier load mount, when at rest position, is offset to one side along the width with respect to the center line passing through the center of the case width; and an opening section, and a door for opening and closing the opening section are provided at the front side or the rear side of the transfer chamber on the other side that is not offset.

Claim 6 (Original): A substrate processing apparatus according to claim 5, whercin a substrate transfer device for transferring the substrate is installed on one side in the transfer chamber, and a substrate aligner device for aligning the substrate is installed on the other side.

Claim 7 (Currently Amended): A substrate processing apparatus according to claim 6, whercin the rotation center in the horizontal plane of the substrate transfer device, when at rest position, is arranged on the line segment.

Claim 8 (Cancel)

Claim 9 (Currently Amended): A substrate processing apparatus according to claim 6, wherein the opening section is arranged for entry of maintenance personnel into the transfer

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chamber, provided for maintenance of the substrate transfer device and the substrate aligner device.

Claim 10 (Cancel)

Claim 11 (Cancel)

Claim 12 (Original): A substrate processing apparatus according to claim 5, wherein a cleaning unit for cleaning the atmosphere of the transfer chamber, and a substrate aligner device for aligning the substrate, and a substrate transfer device for transferring the substrate are installed in sequence in the transfer chamber along the flow direction of the atmosphere blown out of the cleaning unit.

Claim 13 (Currently Amended): A substrate processing apparatus according to claim 12, wherein the opening section is arranged for entry of maintenance personnel into the transfer chamber, provided for maintenance of the substrate transfer device and the substrate aligner device.

Claim 14 (Original): A substrate processing apparatus according to claim 5, wherein the standby chamber is a load lock chamber,

Claim 15 (Currently Amended): A substrate processing apparatus according to claim 1, wherein a cleaning unit for cleaning the atmosphere of the transfer chamber is installed in the transfer chamber at a cleaning unit side, and the opening section and the door are provided positioned so that the space dimension from the front side to the rear side of the transfer chamber gradually becomes smaller as measured from the opening section and the door become to the rear side, gradually decreases when measured closer to the cleaning unit side when viewed horizontally.

Claim 16 (Currently Amended): A substrate processing apparatus according to claim 5, wherein a cleaning unit for cleaning the atmosphere of the transfer chamber is installed in the transfer chamber at a cleaning unit side, and the opening section and the door are provided positioned so that the space dimension from the front side to the rear side of the transfer chamber gradually becomes smaller as measured from the opening section and the door become to the rear side, gradually decreases when measured closer to the cleaning unit side when viewed horizontally.

Claim 17 (Currently Amended): A substrate processing apparatus according to claim 12, wherein the cleaning unit is installed at a cleaning unit side and the opening section and the door are provided positioned so that the space dimension from the front side to the rear side of the transfer chamber gradually becomes smaller as measured from the opening section and the door become to the rear side, gradually decreases when measured closer to the cleaning unit side when viewed horizontally.

Claim 18 (Currently Amended): A substrate processing apparatus according to claim 1 [[2]], wherein the load lock chamber and the transfer chamber are provided in order from the rear side within the case, the load lock chamber is offset to one side along the width with respect to the center line passing through the center of the case width; and the opening section, and the door for opening and closing the opening section are provided at the rear side of the transfer chamber on the side opposite to the offset side.

Claim 19 (Previously Presented): A substrate processing apparatus according to claim 18, wherein the opening section, and the door for opening and closing the opening section are provided at the rear side of the load lock chamber.

Claim 20 (Previously Presented): A manufacturing method for a semiconductor device for processing a substrate by utilizing a substrate processing apparatus comprising a load lock chamber and a transfer chamber provided in order from the rear side within a case, a processing chamber provided above the load lock chamber for processing a substrate, and an opening section and a door for opening and closing the opening section provided in a location at the rear side of the transfer chamber where the load lock chamber is not arranged, wherein the manufacturing method comprises the steps of: carrying the substrate into the load lock chamber from the transfer chamber whose door closes the opening section; carrying the substrate into the processing chamber from the depressurized load lock chamber; and processing the substrate.

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